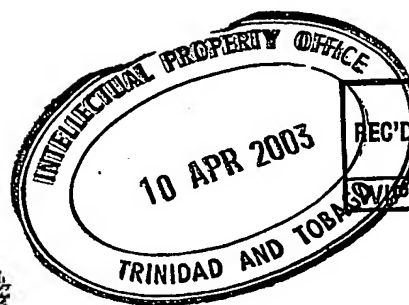


PCT/PTO 20 AUG 2004

PCT / IB 03 / 00605

15.05.03



REC'D	28 MAY 2003
WIPO	PCT

**CERTIFIED COPY OF**

**PATENT APPLICATION**

**NO. TT/A/2002/00021**

**FILED ON 20<sup>TH</sup> FEBRUARY, 2002**

**IN THE NAME OF**

**OXLEY PAUL**

**PRIORITY DOCUMENT**  
SUBMITTED OR TRANSMITTED IN  
COMPLIANCE WITH  
RULE 17.1(a) OR (b)

# INTELLECTUAL PROPERTY OFFICE, TRINIDAD AND TOBAGO

Form No.1  
PATENTS ACT  
Office

For Official Use  
Date of Receipt by Intellectual Property

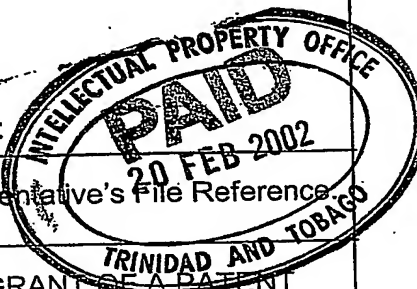
REQUEST FOR GRANT OF  
PATENT OR UTILITY CERTIFICATE

APPLICATION No: TTA/2002/0002  
(Office's Stamp)

To: The Controller  
Intellectual Property Office

FILING DATE:

Applicant's or Representative's File Reference:



THE APPLICANT(S) REQUEST(S)

☒

THE GRANT OF A PATENT

☐

THE GRANT OF A UTILITY  
CERTIFICATE

IN RESPECT OF THE FOLLOWING PARTICULARS:

I. TITLE OF INVENTION:

A process has been developed which treats produced/associated fluids in the petroleum and petrochemical industry whereby dissolved solids are removed thus ensuring the treated fluids meet international environmental standards.

II. APPLICANT(S)\*

Additional information is contained in supplemental box

☐

Name(s): Oxley Paul

Address(es): Guapo Road, Fyzabad, Trinidad, West Indies.

Nationality / nationalities: Trinidadian

Country / countries of residence or principal place(s) of business:  
Trinidad and Tobago

Tel No:  
(868)677-7341

Telegraphic Address(es):  
[hcarb@tstt.net.tt](mailto:hcarb@tstt.net.tt)

Telex No:

Fax No:  
(868)677-7559

- The data concerning each applicant must appear in this box or, if the space is insufficient, in the supplemental box.

Address for service in  
Trinidad and Tobago \*

III. AGENT

The following agent has been appointed by the applicant(s) in the  
authorization of agent

☒

accompanying this form

☐

to be filed within  
two months from the  
filing of this form

Name: Garnet Mungalsingh, Ravi Maurice Mungalsingh and Co.  
Attorneys at Law and Notary Public

Address: 7 Court Street, San Fernando, Trinidad, West Indies.

Tel. No:  
(868)653-5013

Telegraphic Address(es):  
garnetmungalsingh@tstt.nett.tt

Telex No: Fax No.:  
(868)653-7394

IV. INVENTOR

☐

The inventor is the applicant

Additional information is  
contained in supplemental  
box

☐

If inventor is not the applicant

Name: Dolly Nicholas

Address: 15 Hillcrest Drive, Battoo Lands, Marabella, West Indies

The statement justifying the applicant's right accompanies this Form

☒

V. DIVISIONAL APPLICATION

This application is a divisional application ☐ . The benefit of the ☐

filing date ☐ priority date of the initial application is claimed in as much  
as

the subject matter of the present application is contained in the initial  
application

identified below.

Initial Application No:

Date of filing of initial application:

VI. DISCLOSURES TO BE DISREGARDED FOR PRIOR ART PURPOSES

- ☐ Disclosure occurred not more than one year before the filing date or priority date of the present application by reason or in consequence of acts of the applicant or his predecessor in title
- ☐ of an abuse committed by a third party with regard to the rights of the applicant or his predecessor in title.
- ☐ Additional information is contained in a statement accompanying this Form.

VII. PRIORITY DECLARATION (if any)

The priority of (an) earlier application(s) is claimed as follows

☐

The priority of more than one earlier application is claimed; the data are indicated in the supplemental box

☐

Country (if the earlier application is a regional or international application, indicate the office with which and the countries for which it was filed):

Filing Date:

Application No:

Symbol of the International Patent Classification:

☐

not yet allocated

The certified copy of the earlier application ☐ accompanies this Form

☐

will be furnished upon request by the Controller, as prescribed by Rule 20(5)

☐

has already been furnished with application No ..... [see Rule 20(5)]

The English translation of the earlier application ☐ accompanies this Form

☐

will be furnish upon request, as prescribed by Rule 20(6)

VIII. SUPPLEMENTAL BOX\*

\*Use this box if any of the boxes is not large enough to contain information to be furnished. Indicate the boxes continued in this box by their roman numerals and title [e.g., "II. APPLICANT(S) (continued)"].

IX. CHECK LIST (TO BE FILLED IN BY THE APPLICANT)

A. This application contains the following:

1. request five (5) sheet(s)

2. description two (2) sheet(s)

3. claim(s) four (4) sheet(s)

4. abstract one (1) sheet(s)

5. drawing(s) 12 sheet(s)

12

sheets

B. This Form, as filed, is accompanied by the items ticked below:

☒ separate signed authorization of agent

☐ statement justifying the applicant's right

☐ statement that certain disclosures be disregarded

☐ priority document(s) [certified copy of earlier application(s)]

☐ English translation of earlier application(s) on which priority declaration is based

☒ application fee

☐ other document(s) (specify)

C. Figure number ..... of the drawings (if any) is suggested to accompany the abstract for publication

X.

SIGNATURE(S)

APPLICANT

14 FEBRUARY 2002  
Date

Type name(s) under signature(s).

Indicate whether applicant or agent.

TO BE FILLED IN BY THE CONTROLLER

1. Date of receipt of corrections or later filed documents completing the application:

2. Date fees received:

Nicholas, Dolly

February, 2002

A process has been developed which treats produced/associated fluids in the petroleum and petrochemical industry whereby dissolved solids are removed thus ensuring the treated fluids meet international environmental standards.

Inventor: Dolly Nicholas  
15 Hillcrest Drive  
Battoo Lands  
Marabella.

Assignee: Hydrocarb (Trinidad) Limited  
Guapo Road,  
Fyzabad.

Filed: February, 2002

19 Claims, No Drawings

**"A process has been developed which treats produced/associated fluids in the petroleum and petrochemical industry whereby dissolved solids are removed thus ensuring the treated fluids meet international standards."**

## **INTRODUCTION**

No system has previously existed whereby attempts have been made to reduce and/or remove dissolved solids associated with the petroleum and petrochemical industry and more particularly producing wells wherever they are located. These processes have never been able to reduce or remove the dissolved solids to any great extent. Former processes have been quite expensive and impracticable for the purposes of the industry.

## **INVENTION**

At present problems exist globally where as a consequence of the petrochemical extraction certain materials are produced which do not meet local and/or global environmental standards (hereinafter called "the material").

A process has been developed which involves the removal of the dissolved solids from the by-products of production which are capable of meeting environmental standards.

The process can involve chemical reactions and/or chained scission and as a consequence of the reactions and/or chained scission, the dissolved solid in the material which were once soluble are now rendered insoluble and this non dissolved solid is then removed from the material. The resulting treated material (hereinafter called "the residue") is then able to meet the necessary local and/or global environmental standards with regards to the release of waste substances into the environment.



Not only are biological oxygen demand and chemical oxygen demand requirements met but also the standard set for dissolved oxygen as well as total petroleum hydrocarbons are also met.

The process of reaction uses either a solid as exemplified by ice, a liquid as exemplified by water and/or a gas as exemplified by steam and any combination thereof which would result in chained scission and/or reaction in the removal of dissolved solids.

The dissolved solids can then be separated and then removed from the material leaving a residue. The said dissolved solids which are removed can then be recycled into the environment and is not a waste as an environmentally unsound material which needs disposal. No new environmental problem is created by virtue of dissolved solids being removed. The treatment of the residue enables its release into the environment.

After the material is treated as aforesaid the residue (not being the insolubles) which may be a solid or liquid or gas or a combination thereof is then reacted with a solid or liquid or gas or a combination thereof which performs as a sanitizing agent.

## WHAT IS CLAIMED

- (1) The creation of a process which results in the removal of dissolved solids from materials produced as a consequence of the extraction of petro chemicals.
- (2) As in (1) above whereby chemical reaction is used in the removal of the dissolved solids.
- (3) As in (1) above whereby chained scission is used in the removal of the dissolved solids.
- (4) As in (1) above whereby chemical reaction and chained scission are used in the removal of the dissolved solids.
- (5) As in (1) and (2) above whereby the dissolved solids in the material which were once soluble are now rendered insoluble and this non dissolved solid is then removed.
- (6) As in (1) and (3) above whereby the dissolved solids in the material which were once soluble are now rendered insoluble and this non dissolved solid is then removed.
- (7) As in (1) and (4) above whereby the dissolved solids in the material which were once soluble are now rendered insoluble and this non dissolved solid is then removed.
- (8) As in (5) above whereby the materials created as a consequence of extraction is treated and is able to meet international environmental standards.
- (9) As in (6) above whereby the materials created as a consequence of extraction is treated and is able to meet international environmental standards.

- (10) As in (7) above whereby the materials created as a consequence of extraction is treated and is able to meet international environmental standards.
- (11) As in (5) above whereby after the treatment of the material the residue not being the non dissolved solids is reacted with a sanitizing agent which may be a solid, liquid or gas or a combination thereof.
- (12) As in (6) above whereby after the treatment of the material the residue not being the non dissolved solids is reacted with a sanitizing agent which may be a solid, liquid or gas or a combination thereof.
- (13) As in (7) above whereby after the treatment of the material the residue not being the non dissolved solids is reacted with a sanitizing agent which may be a solid, liquid or gas or a combination thereof.
- (14) As in (5) above the non-dissolved solid can then be recycled into the environment which will thereby close the environmental loop.
- (15) As in (6) above the non-dissolved solid can then be recycled into the environment which will thereby close the environmental loop.
- (16) As in (7) above the non-dissolved solid can then be recycled into the environment which will thereby close the environmental loop.
- (17) As in (11) above whereby the treated residue can then be released into the environment.
- (18) As in (12) above whereby the treated residue can then be released into the environment.
- (19) As in (13) above whereby the treated residue can then be released into the environment.

**ABSTRACT**

The process for the removal of dissolved solid through reaction and/or chained scission with the resulting material being almost free of dissolved solid and thus being compliant with international environmental standards.

TRINIDAD AND TOBAGO

**PATENTS RULES 1996**

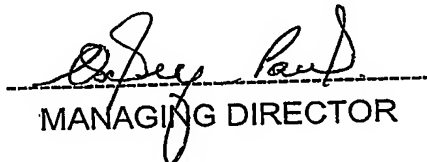
**Form of Authorization of Agent in a matter of  
proceeding under the Act**

WE, HYDROCARB (TRINIDAD) LIMITED of Guapo Road, Fyzabad have appointed MESSRS. GARNET MUNGALSINGH, RAVI MAURICE MUNGALSINGH AND COMPANY of No. 7 Court Street, San Fernando, Trinidad, Attorneys at Law and Notary Public, to act as our agent for the purpose of a process has been developed to treat produced/associated fluids in the petroleum and petrochemical industry whereby dissolved solids are removed thus ensuring the treated fluids meet international environmental standards and request that all notices, requisitions and communications relating thereto may be sent to such agents at the above address.

We hereby revoke all previous authorizations, if any, in respect of the same matter or proceeding.

We hereby declare that we are a company incorporated under the laws of Trinidad and Tobago.

Dated this 14<sup>th</sup> day of February, 2002.

  
MANAGING DIRECTOR

To: The Controller,  
Intellectual Property Office,  
Huggin's Building, South Quay,  
Port of Spain.

ORDINARY PATENT

APPLICATION FOR PATENT

I, **DOLLY NICHOLAS**, of 15 Hillcrest Drive, Battoo Lands, Marabella, Trinidad, West Indies, Consultant to Hydrocarb (Trinidad) Limited of Guápo Road, Fyzabad do solemnly and sincerely declare that I am in possession of an invention entitled "a process has been developed which treats produced/associated fluids in the petroleum and petrochemical industry whereby dissolved solids are removed thus ensuring the treated fluids meet international environmental standards" which invention I believe will be of great public utility, and that the same is not in use in the Territory of Trinidad and Tobago to the best of my knowledge and belief, and that the instrument herewith delivered particularly describes and ascertains the nature of the said invention, and the manner in which the same is to be performed;

And I humbly pray that a Patent may be granted to the Company for the said invention.

And I make this declaration conscientiously believing the same to be true and according to the Statutory Declarations Ordinance, and I am aware that if there is any statement in this declaration which is false in fact which I know or believe to be false or do not believe to be true, I am liable to fine and imprisonment.

Declared at 7 Court Street, San Fernando, Trinidad, West Indies, )  
on the 14<sup>th</sup> day of February, 2002) *Dolly Nicholas*

Before me,

*[Signature]*  
Commissioner of Affidavits.

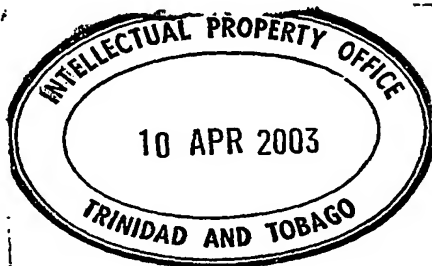
Dated this 14<sup>th</sup> day of February, 2002.

**RONALD SINANAN**  
**COMMISSIONER OF AFFIDAVITS**  
*[Signature]*  
**RAVI MAURICE MUNGALSINGH**  
Attorney at Law  
7 Court Street, San Fernando.

To: The Controller  
Intellectual Property Office  
Huggins Building, South Quay,  
Port of Spain.



**REPUBLIC OF TRINIDAD AND TOBAGO:**

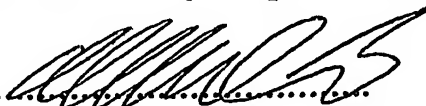


**INTELLECTUAL PROPERTY OFFICE  
72/74 SOUTH QUAY  
PORT OF SPAIN**

**10<sup>th</sup> April, 2003.**

**I, MAZINA KADIR, Controller of the Intellectual Property Office, Trinidad and Tobago, do hereby certify that the foregoing Thirteen (13) pages contain a true and correct copy of the original Patent Application No. TT/A/2002/00021 entitled "A process has been developed which treats produced/associated fluids in the petroleum and petrochemical industry whereby dissolved solids are removed thus ensuring the treated fluids meet international environmental standards" filed in the name of Oxley Paul on the 20<sup>th</sup> February, 2002.**

**WITNESS my hand and Seal of  
Office this 10<sup>th</sup> day of April, 2003**

.....

**Controller  
Intellectual Property Office  
Trinidad and Tobago.**